

## ABSTRACT

A vehicle remote control apparatus has: A) a first transmitter for outputting an authentication request signal to a mobile device including a radio terminal assigned with an identification code special to a vehicle and outputting  
5 an authentication response signal corresponding to the identification code; B) a second transmitter for outputting an interference wave to cancel the authentication request signal at the same time as the first transmitter transmits the authentication request signal; C) a receiver for receiving the authentication response signal output from the mobile device in response to the  
10 authentication request signal, thereby checking authenticity of the authentication response signal; and D) a controller for controlling operation of an on-vehicle equipment based on the result of authentication of the authentication response signal.